LaJuana S. Wilcher

Secretary

# AIR QUALITY PERMIT

**Issued under 401 KAR 52:040** 

ErnieFletcher

Governor

**State Origin Permit for non-major Source** 



Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

Permittee Name: Columbia Natural Resources LLC
Mailing Address: P.O. Box 6070, Charleston, WV 25362

is authorized to operate Natural Gas Compressors and Natural Gas treatment facility.

**Source Name:** Oneida Compressor Station

Mailing Address: Route 11,

**Oneida, KY 40972** 

**Source Location:** Same as above

KYEIS ID #: 21-051-00052 SIC Code: 1311

County: Clay

AI Number: 37747 Activity #: APE 20050001

Permit Number: S-05-123 Permit Type: State Origin Operating

Regional Office: London Regional Office Completion Date: June 30, 2005

875 S. Main Street Issuance Date: July 12, 2005 London, KY 40741 Expiration Date: July 12, 2015

> John S. Lyons, Director Division for Air Quality

**DEP7001 (6-97)** *Revised: 07/10/03* 

Columbia Natural Resources LLC - Oneida Compressor Station Subject Item Inventory

Activity ID No.: APE20050001

# **Subject Item Inventory:**

ID	Designation	Description
AIOO37747	SOURCE	General Conditions:
COMB2	007	Stabilizer Reboiler Hot oil Heater, Emission Point : 07 ( HTR-1 ) Max. Capacity: 1.5 mmBtu/hr. Natural Gas fired Hot Oil Heater Control Device: none Construction Date:05/2001
EQPT4	001	Engine 1, Caterpillar G3512 TALE : Emission Point: 01 ( E-01 ) Type: Pipe line Compressor Reciprocating NG fired combustion Engine, Power Output: 1004, Fuel Gas input: 7.4 mmBtu/hr. Control Device: none Construction Date:12/2000 and Increase HP: 4/04
EQPT5	002	Engine 2, Caterpillar G3512 TALE: Emission Point: 02 (E-02) Type: Pipe line Compressor Reciprocating NG fired combustion Engine, Power Output: 1004, Fuel Gas input: 7.4 mmBtu/hr. Control Device: none Construction Date: 12/2000 and Increase HP: 4/04
EQPT6	003	TEG Dehydration (TEG Regeneration) unit vent with Flare (NG combustion emissions) Emission Point: 03 (FL-1) Max. Capacity: 15mmscf/day and 200 gal/hr TEG recirculation Control Device: Flare.  Construction Date: 12/2000
EQPT7	004	TEG Reboiler for the regenerator, Emission Point: 04 (BL-1) NG fired reboiler, Capacity: 1.5 mmBtu/hr Control Device: none Construction Date: 12/2000
EQPT8	005	EG Regenerator Vent Gas, Emission Point: 05 (EG)  Maximum Capacity of Vent Gas generation: 0.625 mmcf/hr.  Control Device: none  Construction Date:05/2001
EQPT9	006	EG Reboiler for the regenerator, Emission Point: 06 (BL-2) NG fired reboiler, Capacity: 0.5 mmBtu/hr Control Device: none Construction Date: 05/2001

Columbia Natural Resources LLC - Oneida Compressor Station Subject Item Inventory

Activity ID No.: APE20050001

ID	Designation	Description
EQPT10	008	Fugitives from process operations, Emission Point:08 ( FUG )

# **Subject Item Groups:**

ID	Description	Components
GACT1	NG fired gas compressors: Engine 1 & 2	EQPT8 EG Regenerator Vent Gas, Emission Point: 05 (EG)
	EG Regenerator Vent Gas, Emission Point: 005	Maximum Capacity of Vent Gas generation: 0.625 mmcf/hr.
		Control Device: none
		Construction Date:05/2001
		EQPT4 Engine 1, Caterpillar G3512 TALE : Emission Point: 01 ( E-01 )
		Type: Pipe line Compressor Reciprocating NG fired combustion Engine,
		Power Output: 1004, Fuel Gas input: 7.4 mmBtu/hr.
		Control Device: none
		Construction Date: 12/2000 and Increase HP: 4/04
		EQPT5 Engine 2, Caterpillar G3512 TALE : Emission Point: 02 (E-02)
		Type: Pipe line Compressor Reciprocating NG fired combustion Engine,
		Power Output: 1004, Fuel Gas input: 7.4 mmBtu/hr.
		Control Device: none
		Construction Date: 12/2000 and Increase HP: 4/04
GACT2		EQPT9 EG Reboiler for the regenerator, Emission Point: 06 (BL-2)
	TEG regenerator reboiler, EG regenerator reboiler,	NG fired reboiler, Capacity: 0.5 mmBtu/hr
	Stabilizer reboiler hot oil heater.	Control Device: none
		Construction Date: 05/2001
		EQPT7 TEG Reboiler for the regenerator, Emission Point: 04 (BL-1)
		NG fired reboiler, Capacity: 1.5 mmBtu/hr
		Control Device: none
		Construction Date: 12/2000

Columbia Natural Resources LLC - Oneida Compressor Station Subject Item Inventory

Activity ID No.: APE20050001

ID	Description	Components
GACT2	NG fired Reboilers: Insignificant Activities.	COMB2 Stabilizer Reboiler Hot oil Heater, Emission Point: 07 ( HTR-1 )
	TEG regenerator reboiler, EG regenerator reboiler,	Max. Capacity: 1.5 mmBtu/hr. Natural Gas fired Hot Oil Heater
	Stabilizer reboiler hot oil heater.	Control Device: none
		Construction Date: 05/2001

KEY	
ACTV = Activity	AIOO = Agency Interest
AREA = Area	COMB = Combustion
EQPT = Equipment	MNPT = Monitoring Point
PERS = Personnel	PORT = Transport
STOR = Storage	STRC = Structure
TRMT = Treatment	

Columbia Natural Resources LLC - Oneida Compressor Station Facility Requirements

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#### **AIOO37747 (SOURCE) General Conditions::**

#### Submittal/Action Requirements:

#### Condition

No. Condition

#### S-1 SEMIANNUAL REPORTS:

The permittee shall submit report(s): Due semiannually, by the 30th of January and July to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit. This report shall be a summary of any monitoring required by this permit, other than continuous emission or opacity monitors. For emission units that had not yet begun construction, were still under construction, or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation. All reports shall be certified by a responsible official. All deviations from permit requirements shall be clearly identified in the reports. [401 KAR 52:040 Section 21]

#### S-2 COMPLIANCE CERTIFICATION:

The permittee shall certify compliance with the terms and conditions contained in this permit and shall submit compliance certification: Due annually, by the 30th of January to the Regional Office listed on the front of this permit. Compliance Certification Form (DEP 7007CC) (or an approved alternative) shall be used in accordance with the following requirements:

- a. Identification of the term or condition;
- b. Compliance status of each term or condition of the permit;
- c. Whether compliance was continuous or intermittent;
- d. The method used for determining the compliance status for the source, currently and over the reporting period, and
- e. For emission units that had not yet begun construction, were still under construction, or which had not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is not in operation and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
- f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the Regional Office listed on the front of this permit and the following address:

Division for Air Quality Central Files 803 Schenkel Lane Frankfort, KY 40601. [401 KAR 52:040 Section 19]

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Submittal/Action Requirements:

Condition	
No.	Condition
S-3	PERFORMANCE TEST NOTICE AND REPORT:
	Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), at least one month prior to the date of any required performance test(s), the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test.
	For any performance test(s) required by this permit, the permittee shall submit performance/emission test results: Due within 45 days of the completion of the fieldwork to the Division. [Policy Manual of the Division for Air Quality, Section VII.3] [401 KAR 50:016 Section 1(1)]
S-4	PERMIT EXPIRATION AND REAPPLICATION REQUIREMENTS:
	This permit shall remain in effect for a fixed term of ten (10) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division. The permittee shall submit permit application for renewal: Due 180 calendar days before permit expiration date to the Division. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division. [401 KAR 52:040 Section 15]
Narrative	e Requirements:

Condition No.	Condition	
T-1	SECTION A.	PERMIT AUTHORIZATION. [401 KAR 52:040]

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Narrative Requirements:

Condition No.	Condition
T-2	A1. Pursuant to a duly submitted application, the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.
	The permittee shall not construct, reconstruct, or modify an affected facility without first having submitted a complete application and received a permit for the planned activity from the Division, except as provided in this permit or in 401 KAR 52:040, State-origin permits.
	Issuance of this permit does not relieve the permittee from the responsibility of obtaining other permits, licenses, or approvals that may be required by the Cabinet or other federal, state, or local agencies. [401 KAR 52:040]
T-3	A2. The Division for Air Quality has determined that this facility's potential to emit any air pollutant is less than 100 tons per year. Therefore, although the permit is conditioned to allow emissions in excess of 100 tons per year pursuant to federally enforceable Regulation KAR 59:010, New process operations, emissions equal to or in excess of 100 tons per year of any pollutant are not possible. Accordingly, this permit is being issued as a minor source state-origin permit. [401 KAR 52:040]. [401 KAR 52:040]
T-4	SECTION B. ADMINISTRATIVE REQUIREMENTS. [401 KAR 52:040]
T-5	B1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:040, Section 3(1)(b) and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit. [401 KAR 52:040 Section 3(1)(b)]
T-6	B2. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [Cabinet Provisions and Procedures for Issuing State Origin Permits, Section 1a (11)]. [401 KAR 52:040 Section 23]
T-7	B3. This permit may be revised, revoked, reopened, reissued, or terminated for cause. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance shall not stay any permit condition. [Cabinet Provisions and Procedures for Issuing State Origin Permits, Section 1a (4) and (5)]. [401 KAR 52:040 Section 23]
T-8	B4. This permit does not convey property rights or exclusive privileges. [Cabinet Provisions and Procedures for Issuing State Origin Permits, Section 1a, 8]. [401 KAR 52:040 Section 23]
T-9	B5. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 52:040 Section 11(3)]

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# Narrative Requirements:

Condition No.	Condition
T-10	B6. This permit shall be subject to suspension at any time the permittee fails to pay all fees within 90 days after notification as specified in 401 KAR 50:038 Section 3(6)(b), Air emissions fee. The permittee shall submit an annual emissions certification. [401 KAR 52:040 Section 20]
T-11	B7. All previously issued construction and operating permits are hereby null and void. [401 KAR Chapter 52]
T-12	SECTION C. RECORD KEEPING REQUIREMENTS. [401 KAR 52:040]
T-13	C1. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of at least five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality. [Cabinet Provisions and Procedures for Issuing State Origin Permits, Sections 1b (IV)(2) and 1a (7)]. [401 KAR 52:040 Section 23]
T-14	C2. The permittee shall perform compliance certification and recordkeeping sufficient to assure compliance with the terms and conditions of the permit. Documents, including reports, shall be certified by a responsible official. [401 KAR 52:040 Section 21]
T-15	SECTION D. REPORTING REQUIREMENTS. [401 KAR 52:040]
T-16	D1. a. The permittee shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows i. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.  ii. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall submit written notice upon request.  b. The permittee shall promptly report deviations from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Reporting Requirement condition D1.a above), the probable cause of the deviation, and corrective or preventive measures taken; to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report. [Cabinet Provisions and Procedures for Issuing State Origin Permits, Section 1b, V(3)]. [401 KAR 50:055 Section 1]
T-17	D2. The permittee shall furnish information requested by the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or compliance with the permit. [Cabinet Provisions and Procedures for Issuing State Origin Permits, Section 1a, 6]. [401 KAR 52:040 Section 23]
T-18	SECTION E. INSPECTIONS. [401 KAR 52:040]

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Narrative Requirements:

Condition		
No.	Condition	
T-19	E1. The permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:  a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;  b. To access and copy any records required by the permit:  c. Inspect any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit.  d. Sample or monitor substances or parameters to assure compliance with the permit or any applicable requirements.  Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency. [401 KAR 52:040 Section 3(1)(f)]	
T-20	SECTION F. EMERGENCIES/ENFORCEMENT PROVISIONS. [401 KAR 52:040]	
T-21	F1. The permittee shall not use as defense in an enforcement action, the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Cabinet Provisions and Procedures for Issuing State Origin Permits, Section 1a, 3]. [401 KAR 52:040 Section 23]	
T-22	F2. An emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:  a. An emergency occurred and the permittee can identify the cause of the emergency;  b. The permitted facility was at the time being properly operated;  c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in t permit; and	
	d. The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two working days after the time when emission limitations were exceeded due to the emergency and included a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.  These provisions are in addition to any emergency or unset provision contained in an applicable requirement. [401 KAR 52:040 Section 22(1)]	
	These provisions are in addition to any emergency or upset provision contained in an applicable requirement. [401 KAR 52:040 Section 22(1)]	
T-23	F3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:040 Section 22(2)]	
T-24	SECTION G. COMPLIANCE. [401 KAR 52:040]	

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# Narrative Requirements:

Condition No.	Condition
T-25	G1. Periodic testing or instrumental or non-instrumental monitoring, which may consist of record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstration of continuing compliance with the conditions of this permit. For the purpose of demonstration of continuing compliance, the following guidelines shall be followed:  a. Pursuant to 401 KAR 50:055, General compliance requirements, Section 2(5), all air pollution control equipment and all pollution control measures proposed by the application in response to which this permit is issued shall be in place, properly maintained, and in operation at any time an affected facility for which the equipment and measures are designed is operated, except as provided by 401 KAR 50:055, Section 1.  b. All the air pollution control systems shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers. A log shall be kept of all routine and non routine maintenance performed on each control device.  c. A log of the monthly raw material consumption and/or monthly production rates shall be kept available at the facility. Compliance with the emission limits may be demonstrated by computer program, spread sheets, calculations or performance tests as may be specified by the Division. [401 KAR 50:055 Section 2]
T-26	G2. Permit Shield - A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with all:  (a) Applicable requirements that are included and specifically identified in this permit; or  (b) Non-applicable requirements expressly identified in this permit. [401 KAR 52:040 Section 11]

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# EQPT6 (003) TEG Dehydration (TEG Regeneration) unit vent with Flare (NG combustion emissions) Emission Point: 03 (FL-1) Max. Capacity: 15mmscf/day and 200 gal/hr TEG recirculation

# Narrative Requirements:

#### **Visible Emissions:**

, 15151			
Condition No.	Condition		
T-1	Visible Emissions: The flare shall be designed for and operated with no visible emissions as determined by reference method 22, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.		
	Compliance Demonstration Method:		
	Refer to Recordkeeping Requirement (T-3) and Monitoring Requirements (T-4 and T-5) for this unit.		
	Limitation. [40 CFR 60.18(c)(1)]		
Applic	Applicable Regulations:		
Condition			
No.	Condition		

No.	Condition
T-2	Applicable Regulations: 40 CFR 60, Subpart KKK (Standards of performance for equipment leaks of VOC from onshore natural gas processing plant); 40 CFR 60.432-10 (Standards: Closed vent systems and control device); and 40 CFR 60.18 (General control device requirements). [40 CFR 60]

#### Recordkeeping:

Condition No.	Condition
T-3	Recordkeeping: Any visible emissions malfunction, and/or flame out condition of the flare tip shall be recorded. Corrective actions taken also shall be recorded. [401 KAR 52:040 Section 3]

Columbia Natural Resources LLC - Oneida Compressor Station Facility Requirements

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# Narrative Requirements:

#### **Monitoring:**

Condition No.	Condition
T-4	Monitoring: The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of flame. [40 CFR 60.18(f)(2)]
T-5	Monitoring: The permittee shall monitor qualitatively for visible emissions from the flare on a weekly basis. The permittee shall monitor by Reference Method 22, if visible emissions are seen. [401 KAR 52:040 Section 3]

#### **Operation:**

Condition No.	Condition
T-6	Operation: Persuant to 40 CFR 60.632 ( 40 CFR 60.482-10 and 40 CFR 60.18), the flare for the TEG regenerator vent gas shall be operational at all time when emissions may be vented to it. The permittee shall meet all the applicable general control device requirements for the flare in 40 CFR 60.18.

Compliance Demonstration Methods:

Refer to Monitoring Requirements (T-4 and T-5) and Recordkeeping Requirements (T-3).

Limitation. [40 CFR 60.632]

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GACT1 (01) NG fired gas compressors: Engine 1 & 2 EG Regenerator Vent Gas, Emission Point: 005

Narrative Requirements:

Condition No.	Condition
T-1	OPERATION:
	Persons responsible for a source from which hazardous matter or toxic substances may be emitted shall provide the utmost care and consideration, in the handling of these materials, to the potentially harmful effects of the emissions resulting from such activities. No owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. Evaluation of such facilities as to adequacy of controls and/or procedures and emission potential will be make on an individual basis by the cabinet.
	Compliance Demonstration Method:
	Refer to general requirements (T-16) for reporting requirements. [401 KAR 63:020 Section 3]
T-2	Applicable Regulations: State Regulation 401 KAR 63:020, Potentially hazardous matter or toxic substances. [401 KAR 63:020 Section 3]

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GACT2 (02) NG fired Reboilers: Insignificant Activities.

TEG regenerator reboiler, EG regenerator reboiler, Stabilizer reboiler hot oil heater.:

Narrative Requirements:

Condition No.	Condition
T-1	The activities within this group have been determined to be insignificant activities for this source pursuant to 401 KAR 52:040 Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary. [401 KAR 52:040 Section 6]